

3. (Amended) The circuit arrangement as claimed in claim 1, wherein the first linear model and the second linear model of the device for adaptation of the echo cancellation are in each case formed by a complex number.
4. (Amended) The circuit arrangement as claimed in claim 1, wherein the nonlinear model of the device for adaptation of the echo cancellation is formed by a Taylor series.
5. (Amended) The circuit arrangement as claimed in claim 4, wherein the Taylor series of the nonlinear model is calculated up to the quadratic element.
6. (Amended) The circuit arrangement as claimed in claim 1, wherein a linear echo cancellation device in the frequency domain is connected in parallel with the device for adaptation of the echo cancellation.
7. (Amended) A method for attenuating echo signals in a circuit arrangement for two-wire/four-wire conversion of a signal generated by multicarrier modulation with orthogonal subchannels, the modeling being effected in the frequency domain of the signal, while the echo cancellation is effected in the time domain of the signal, wherein the echo cancellation device is nonlinear; and the device for adaptation of the echo cancellation has a first linear model, a nonlinear model and also a second linear model; and the coefficients of the nonlinear model which are determined in the device for adaptation of the echo cancellation are transferred to a nonlinear unit of the echo cancellation device.

9. (Amended) The method as claimed in claim 7, wherein the nonlinearities are mapped by a Taylor series.

11. (Amended) The method as claimed in claim 7, wherein linear echo compensation is carried out in the frequency domain of the signal.

Please consider the following new claims 12-17 and 18-22.

12. (New) A circuit arrangement for echo cancellation in a DMT system, the circuit arrangement comprising:

a nonlinear device for adaptive echo cancellation in the frequency domain, the nonlinear device being connected between a digital reception path and a digital transmission path of the DMT system and having

first and second linear models, and

a nonlinear model configured to determine coefficients for adaptive echo cancellation; and

an echo-cancellation device having a nonlinear unit in communication with the nonlinear model of the nonlinear device for receiving the coefficients therefrom.

13. (New) The circuit arrangement as claimed in claim 12, wherein the nonlinear device further comprises an input for receiving a pilot tone.
14. (New) The circuit arrangement as claimed in claim 12, wherein the first linear model and the second linear model of the nonlinear device are configured to generate signals representative of first and second complex numbers.
15. (New) The circuit arrangement as claimed in claim 12, wherein the nonlinear model of the nonlinear device is configured to generate a signal by evaluating a Taylor series.
16. (New) The circuit arrangement as claimed in claim 15, wherein the nonlinear model of the nonlinear device is configured to generate a signal by evaluating a Taylor series truncated after a quadratic term thereof.
17. (New) The circuit arrangement as claimed in claim 12, further comprising a linear echo cancellation device in the frequency domain connected between the digital transmission path and the digital reception path of the DMT system.
18. (New) A method for attenuating an echo of a signal generated by multicarrier modulation with orthogonal subchannels, said method comprising:

in the frequency domain of the signal, adaptively generating a nonlinear model of the signal; and

on the basis of the nonlinear model, performing nonlinear echo cancellation of the signal in the time domain of the signal;

19. (New) The method as claimed in claim 18, wherein adaptively generating a nonlinear model comprises receiving a pilot tone.
20. (New) The method as claimed in claim 18, wherein adaptively generating a nonlinear model comprises evaluating a Taylor series.
21. (New) The method as claimed in claim 20, wherein evaluating the Taylor series comprises evaluating the Taylor series truncated after a quadratic term thereof
22. (New) The method as claimed in claim 18, further comprising performing linear echo compensation in the frequency domain of the signal.

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